

Altruistic Punishment and Anonymity in the Ultimatum Game

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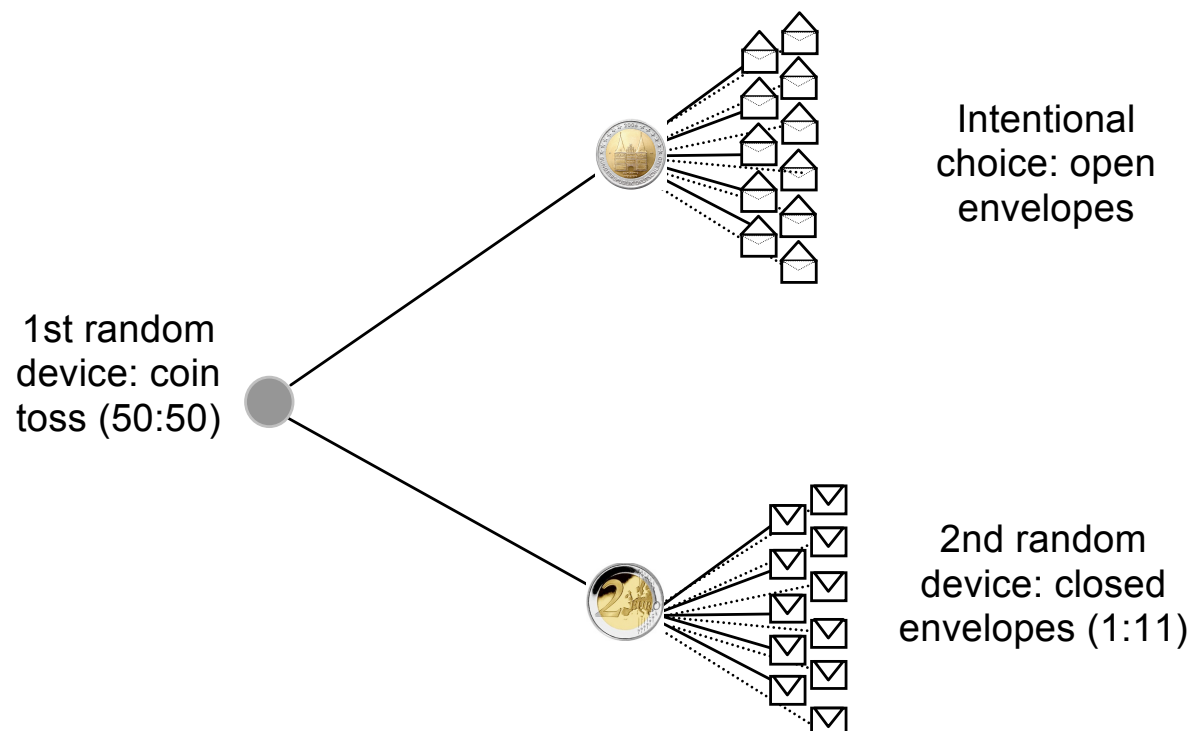
Overview

- I. Anonymity and Fairness
- II. Anonymity and Altruistic Punishment
- III. Hypotheses
- IV. Experimental Design
- V. Results and Conclusion

I. Anonymity and Fairness

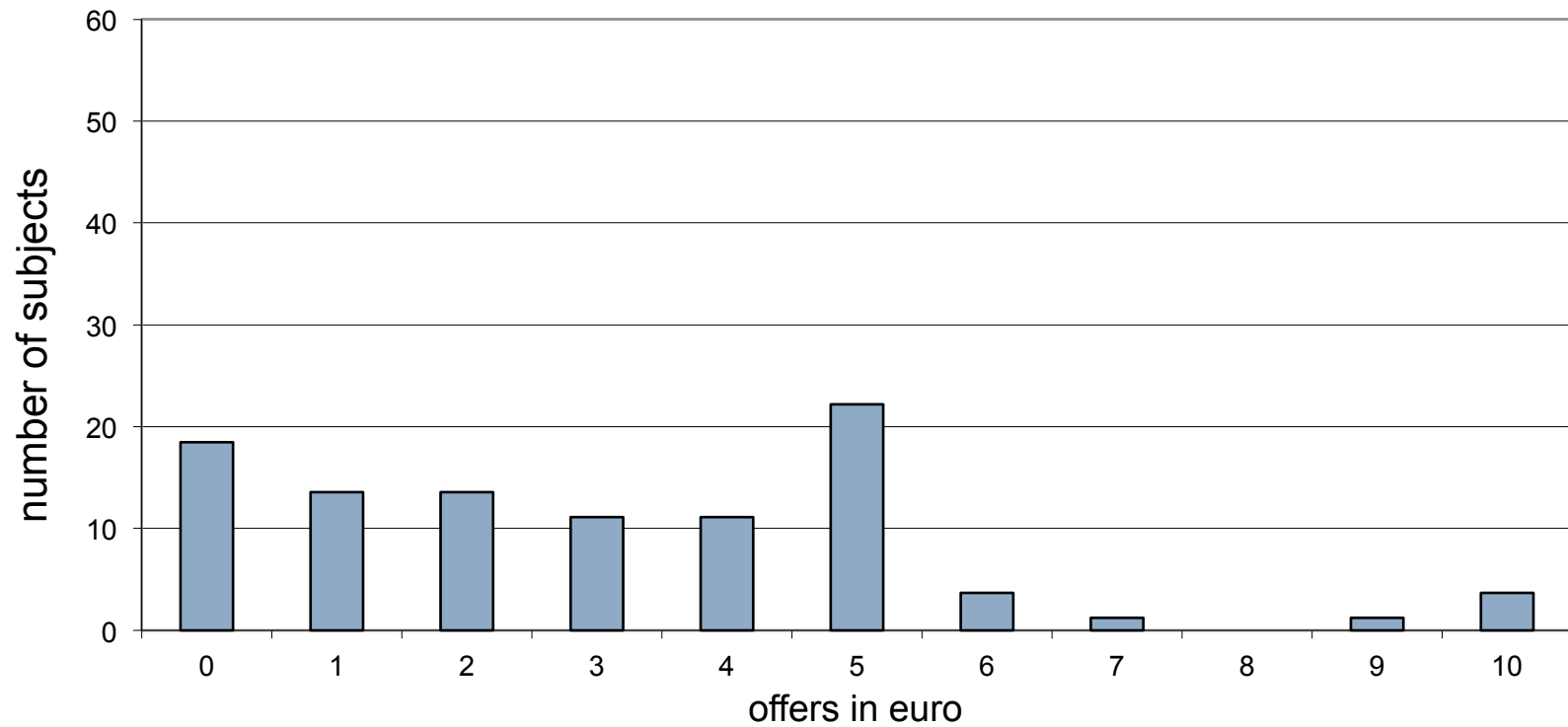
- > Giving in dictator game experiments has often been interpreted as evidence of other-regarding preferences or fairness.
- > A meta-analysis of 129 dictator game studies (Engel 2011) reports that subjects allocate on average 28.58% of their endowment to anonymous co-players.
- > However, some studies suggest that this is an artifact and that anonymity erodes the norm of fairness (e.g. Franzen and Pointner 2012).

The RRT Dictator Game: Design



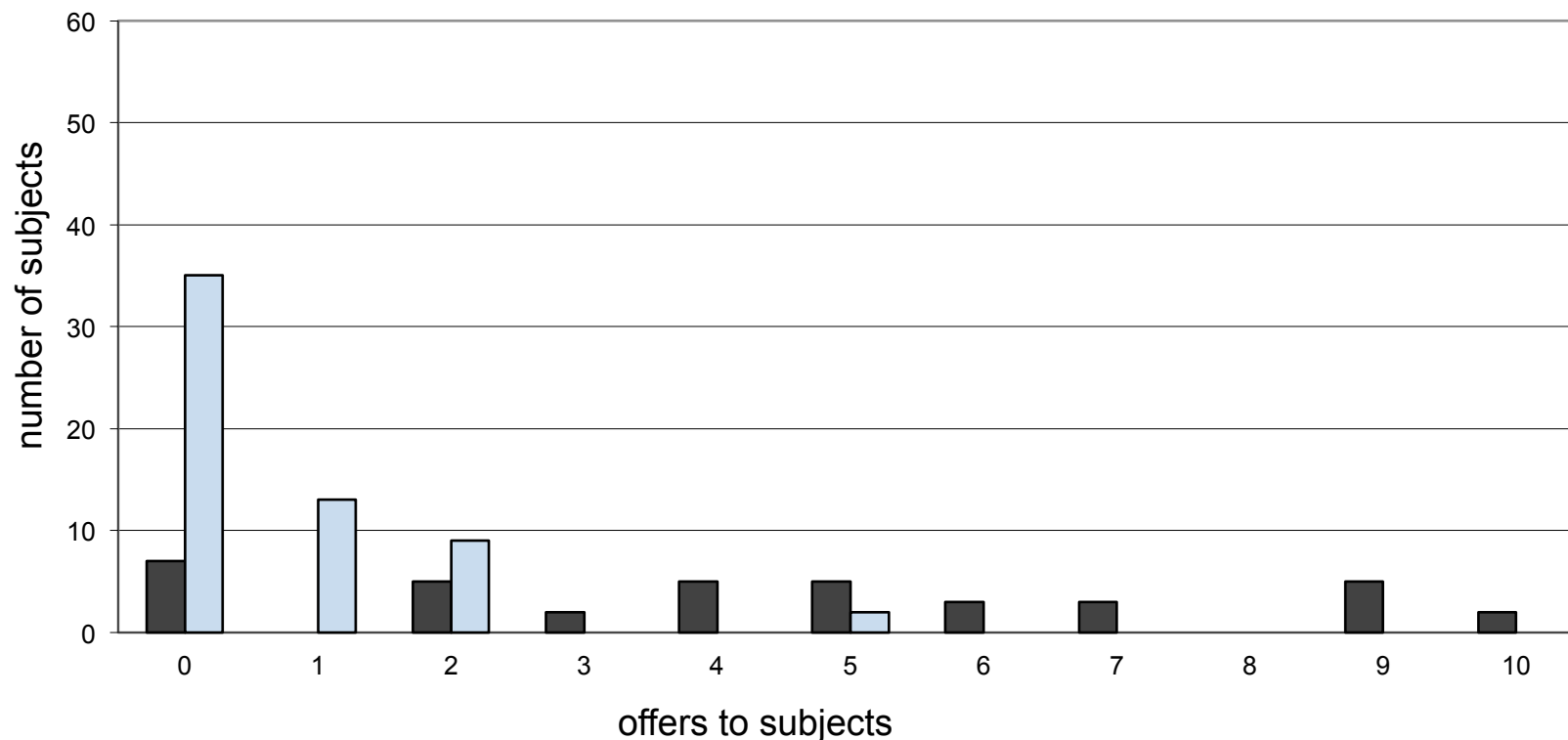
On each place in the lab a pack with 11 **closed** and 11 **open** envelopes was prepared containing vouchers with 10 Euro distributions.

The SDG: Results



$\bar{x} = 3.09, n = 81$

The RRT Dictator Game: Results



Blue bars show the intentional choices (open envelopes), $x = 0.69$, $n = 59$; dark grey bars represent closed envelopes, $n = 37$

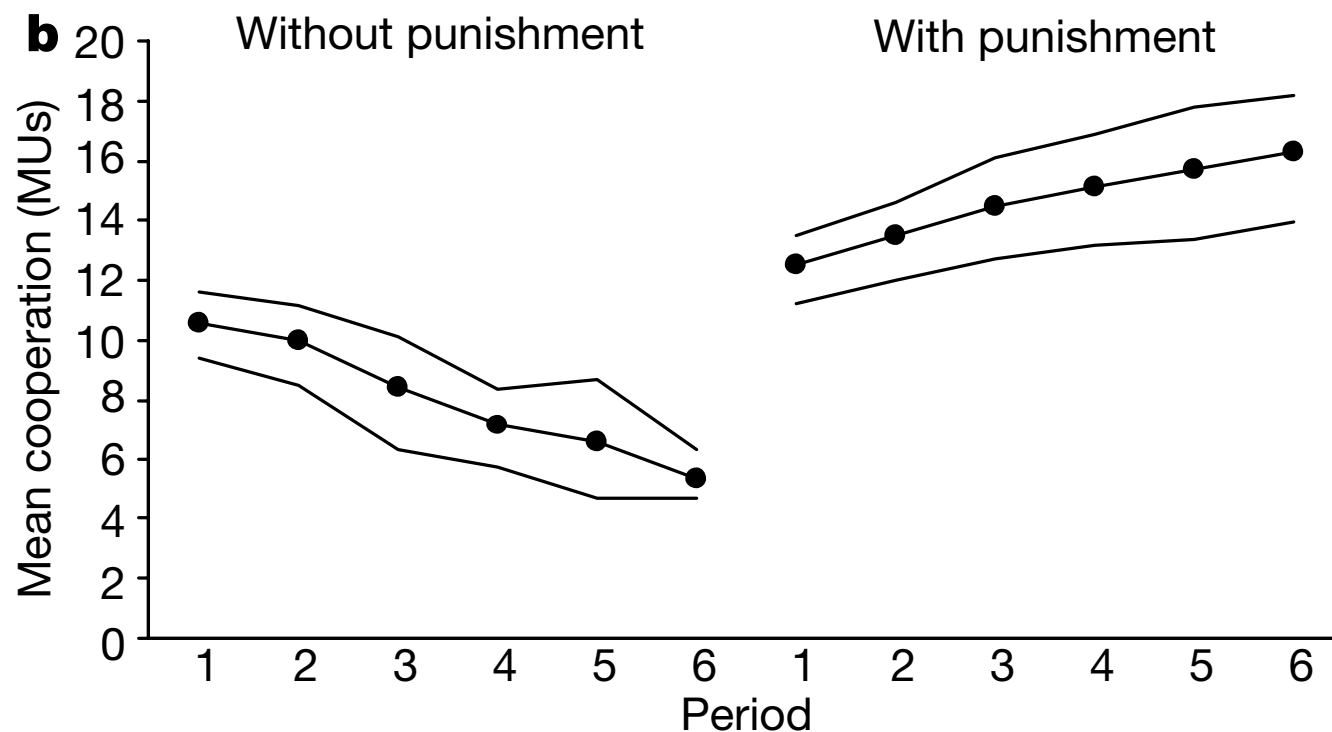
Results

- > Other-regarding preferences almost disappear under conditions of anonymity.
- > Fairness depends on being watched, on the opportunity to gain a favorable reputation.
- > Two groups of studies with similar results:
 - Variation of anonymity (e.g. in Hoffman et al. 1996, Andreoni and Bernheim 2009, Dana et al. 2007)
 - “Watching-Eyes”-effect (Bateson et al. 2006, Ekström 2012, Haley and Fessler 2005, etc.)

II. Altruistic punishment and Anonymity

- > Altruistic punishment, a behavior that sanctions other's misconduct at own costs, is also at odds with the payoff-maximizing principle.
- > Fehr and Gächter (2000, 2002) demonstrated in a Public Good Game (PGG) that players sanction uncooperative co-players at own costs and enable cooperation between anonymous players (see also Carpenter 2007).

Altruistic punishment



Source: Fehr und Gächter 2002, Nature

III. Hypotheses

Why is there altruistic punishment?

- > Emotional reasons (subjects feel anger or outrage) (Fehr and Gächter 2000, Fehr and Fischbacher 2003, Sanfey et al. 2003)
- > Signaling motive: Subjects like to be perceived as norm obedient. They think they have to sanction norm violations.

III. Hypotheses

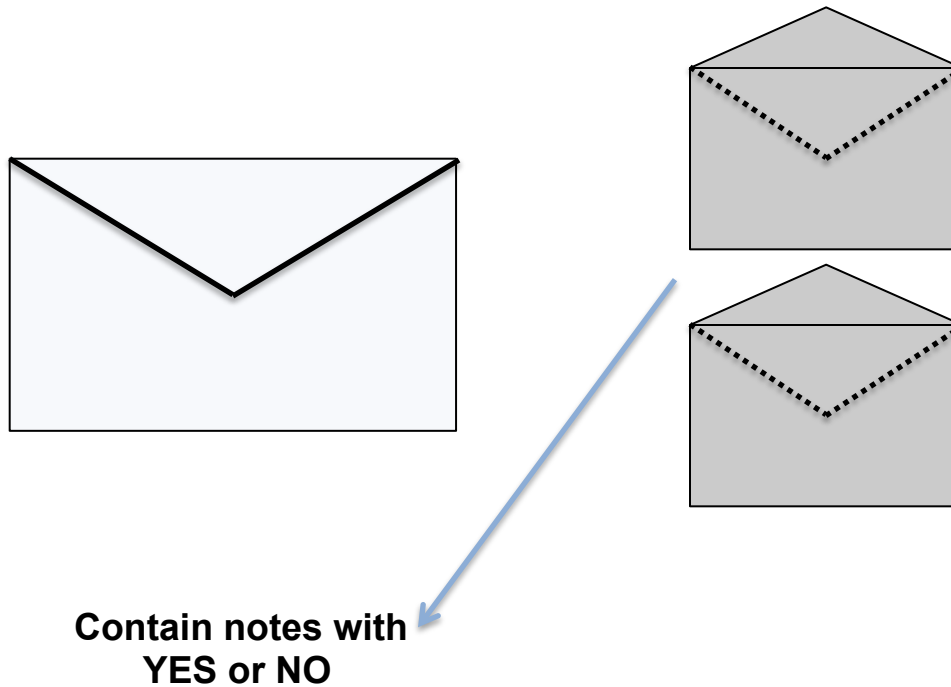
- > We test the robustness of altruistic punishment in an Ultimatum Game (UG)
- > Comparing standard UG (double-blind) with high anonymity condition (RRT).
- > Hypothesis 1a: Rejection rates remain unchanged; emotions drive altruistic punishment.
- > Hypothesis 1b: Rejection rates drop; punishment is due to signaling, observation.

IV. Experimental Design I

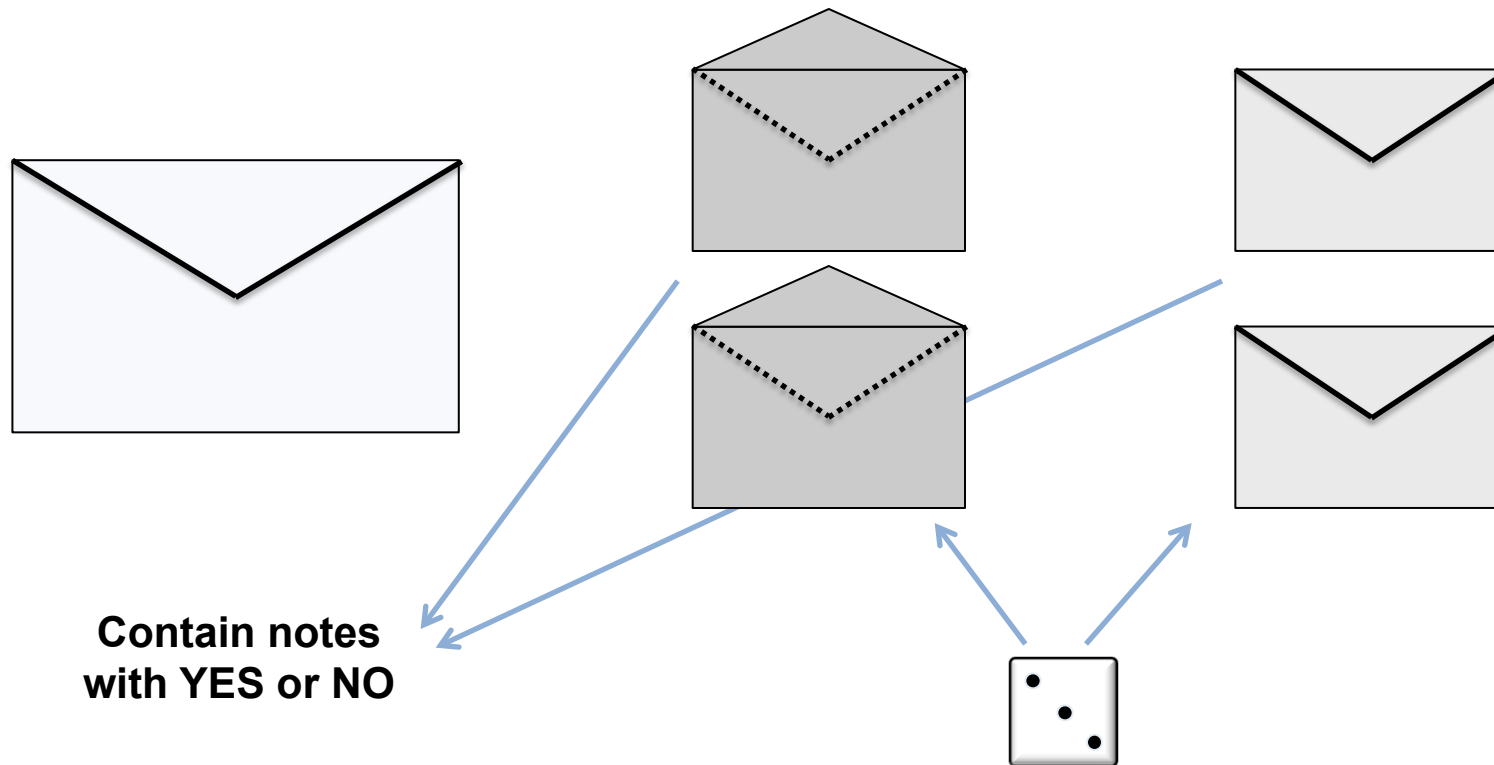
Experimental conditions

	Proposer offers	Anonymity conditions responder	variation signal strength	number of subjects
1	8/2 and 9/1	standard double blind	-	36
2		random mechanism (RRT)	33%	75
3			67%	70

Experimental design: standard UG



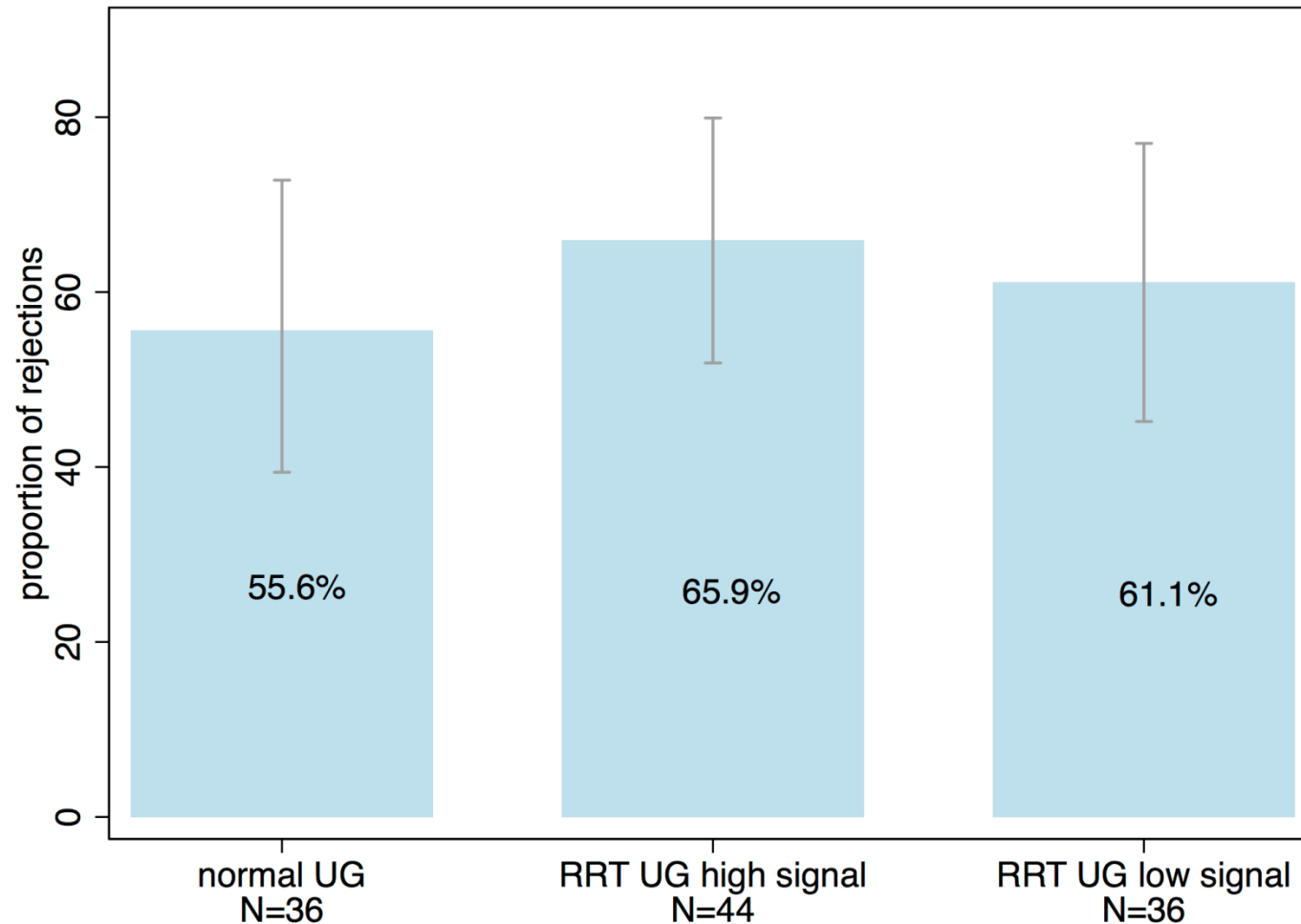
Experimental design: RRT UG



**Contain notes
with YES or NO**

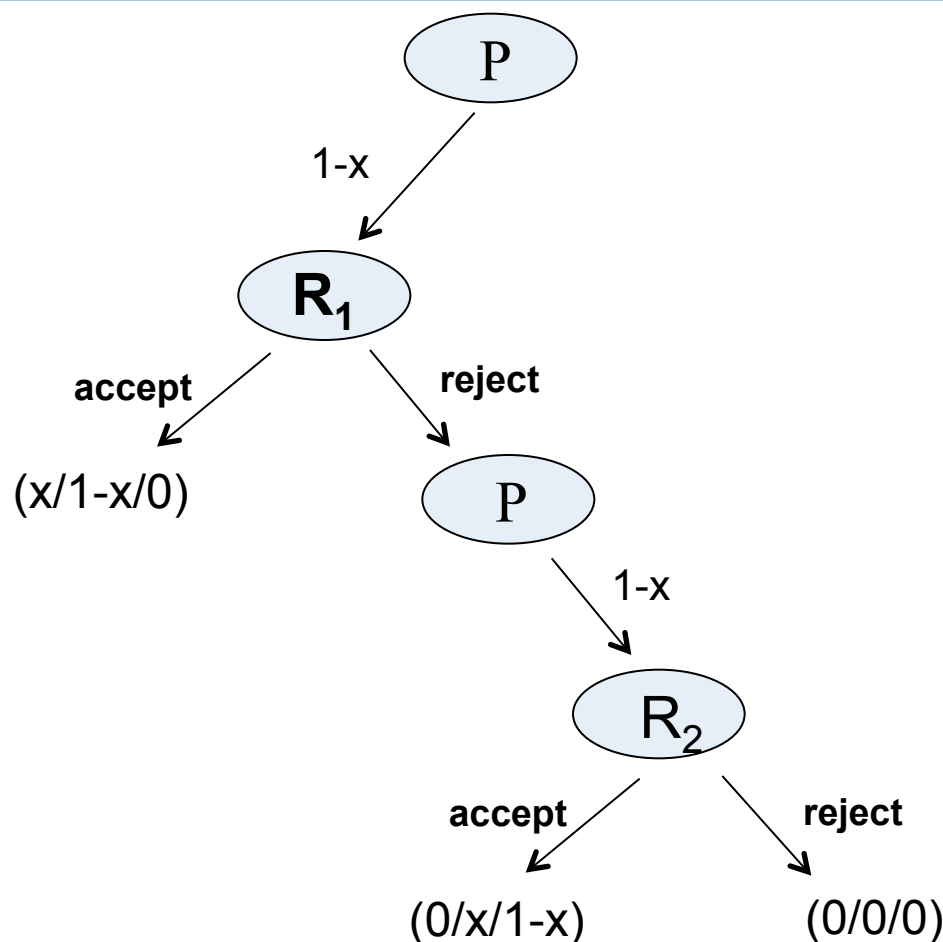
**Low signal strength: numbers 1 and 2 (2/6)
High signal strength: numbers 1, 2, 3, 4 (4/6)**

V. Results: Rejection Rates



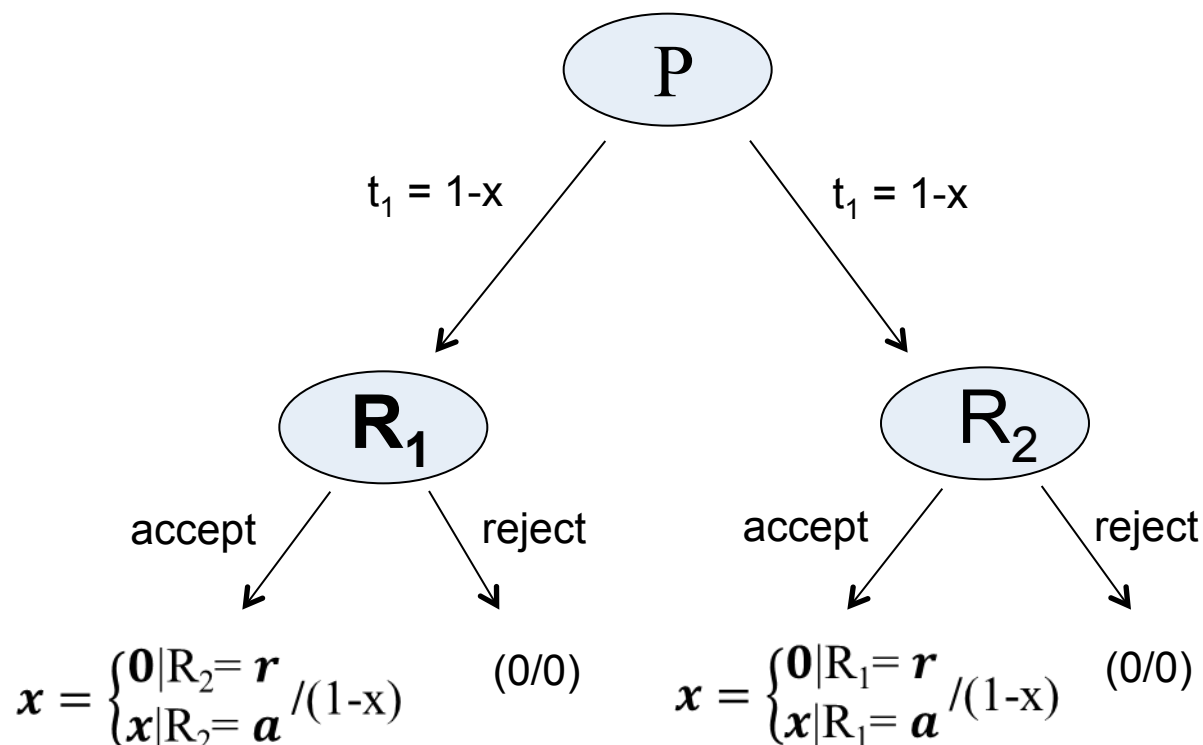
Differences between conditions are not statistically significant.

V. Design II: UG with multiple responders



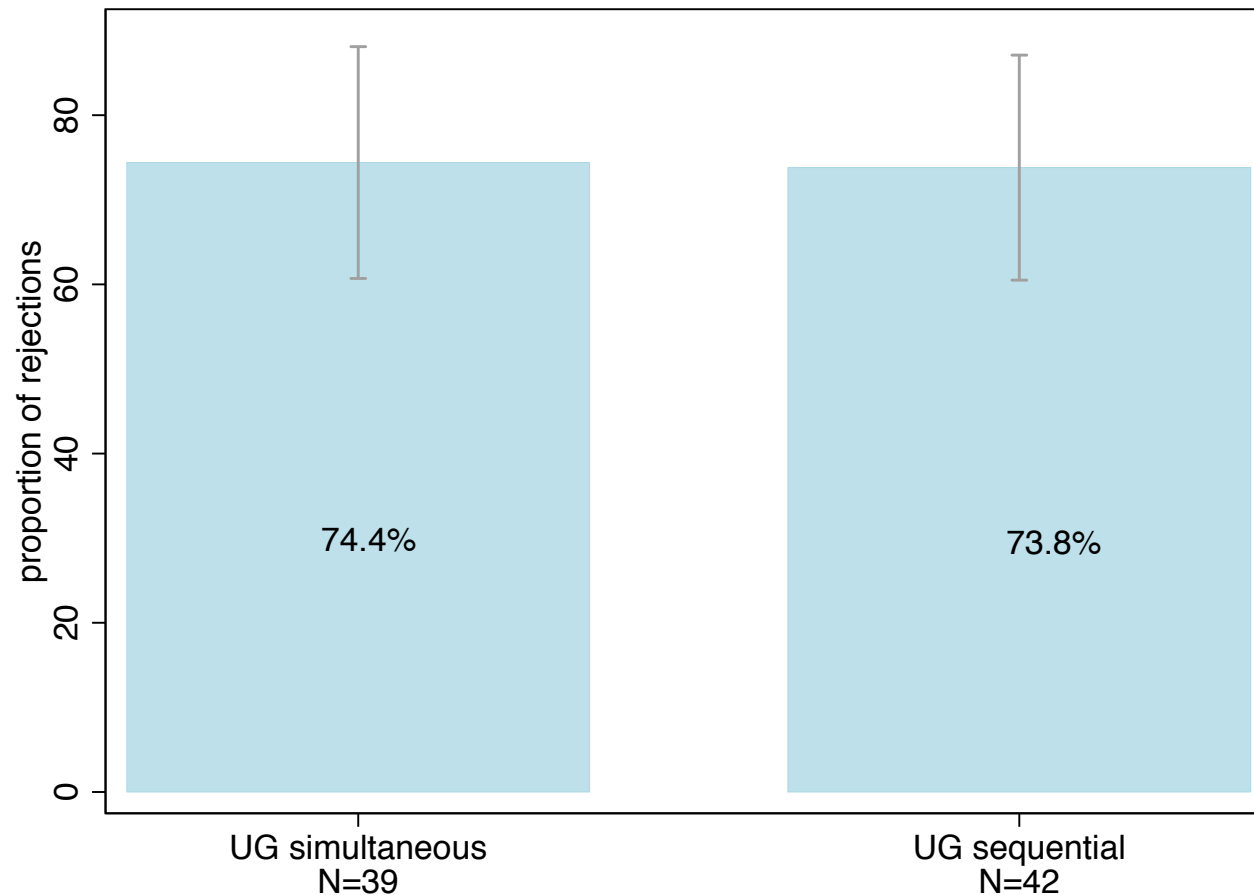
- 1) Same offer is given sequentially; if R_1 accepts game is over, if not offer is given to R_2

V. Design II: UG with multiple responders



2) Same offer is given simultaneously; if R_1 accepts, he gets the money, if one responder rejects, P gets nothing.

V. Results: Rejection Rates



Differences between conditions are not statistically significant.

VI. Conclusion

- > In contrast to fair behavior in dictator games, altruistic punishment is robust under high degree of anonymity.
- > Emotions drive altruistic punishment and not the desire to display norm obedience.
- > Therefore, the explanation of Fehr and Gächter (2002) is confirmed.

Reference:

Franzen, Axel and Sonja Pointner. 2012.
"Anonymity in the Dictator Game
Revisited." Journal of Economic Behavior
& Organization, 81(1), pp. 74-81.